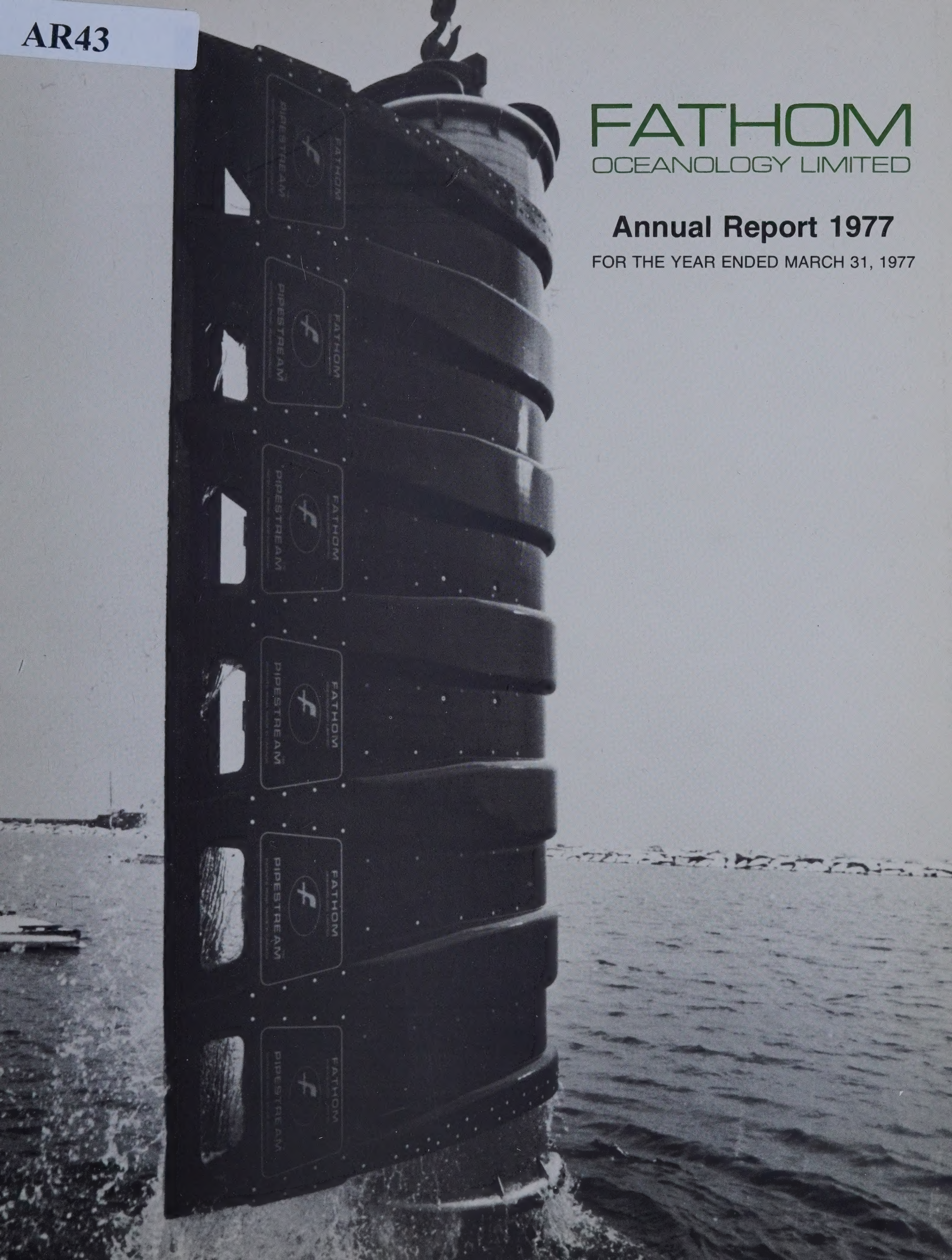
FATHOM
OCEANOLOGY LIMITED

Annual Report 1977

FOR THE YEAR ENDED MARCH 31, 1977



Directors

†* K. R. OLSEN, Hudson, Quebec.
Chairman of the Board, Fathom Oceanology Limited,
President, G. M. Gest Ltd. & Subsidiaries,
Vice President, Atlas Construction Limited.

* R. L. I. FJARLIE, Maxville, Ontario.
President, Fathom Oceanology Limited.

* N. E. HALE, Mississauga, Ontario.
Vice President Engineering, Fathom Oceanology Limited.

†* J. B. FOOTE, Cambellcroft, Ontario.
Business Consultant.

K. GARDNER, Mississauga, Ontario.
Vice President Export Development, Fathom Oceanology Limited.

† J. E. NORDIN, Montreal, Quebec.
General Manager, Corporate Development, Federal Business Development Bank.

F. D. SHAW, Etobicoke, Ontario.
President, Pemtech Inc.

* Member of the Executive Committee
† Member of the Audit Committee

Officers

K. R. OLSEN, Chairman of the Board
R. L. I. FJARLIE, President
N. E. HALE, Vice President
K. GARDNER, Vice President
J. O. EMPEY, Vice President
D. W. FAIRLES, Treasurer and Financial Controller
R. A. DONALDSON, Secretary

Head Office and Plant
863 Rangeview Road, Port Credit, Ontario.

Subsidiary Company
Hale & Associates Limited, Port Credit, Ontario.

Transfer Agent and Registrar
National Trust Company Limited, Toronto, Ontario and Calgary, Alberta.

Banker
Bank of Montreal, Toronto, Ontario.

Auditors
Clarkson, Gordon & Co., Mississauga, Ontario.

Legal Counsel
Blake, Cassels & Graydon, Toronto, Ontario.

Cover

A Pipestream ™ fairing, designed to protect 24 inch diameter oil riser pipes in turbulent seas, goes through a dunking test in Lake Ontario to check water flow through characteristics.

Annual Meeting

The annual meeting of the shareholders of Fathom Oceanology Limited will be held in the Library Room of the Royal York Hotel, Toronto at 4 P.M. on the 21st day of September, 1977.

FATHOM OCEANOLOGY LIMITED

(Incorporated under the Canada Corporations Act)

To the Shareholders of
Fathom Oceanology Limited

Summary

Net income for the year ended March 31, 1977 was \$17,000 or 1¢ a share. This compares with an income of \$220,200 or 15¢ a share for the previous year.

The decline was the result of a less profitable product mix, warranty expenses and the cost of developing the new 'Pipestream' ™ and 'Rigstream' ™ applications of the fairing principle that must be considered an investment in the future.

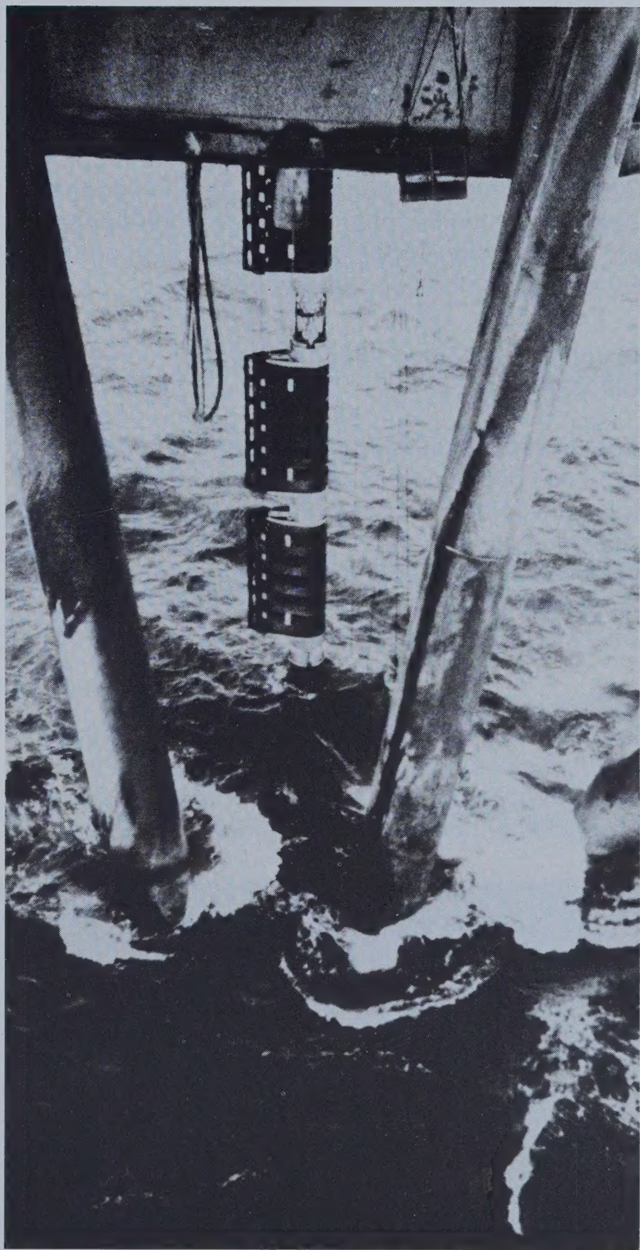
Gross revenue grew in excess of the inflation rate and the company added to its technical capacity to serve wider markets with new products.

Completed Contracts and Work on Hand

Almost all the goods and services provided during the year were shipped to customers outside Canada. These included complete launch and recovery systems, towed fish, sonar domes, fairings and faired cable.

The major completions were: the ultra deep sea towing system for the German partners in a manganese nodule consortium; three towing systems for a U.S. Navy research requirement; and a drill riser faired system for one of the world's leading offshore oil drilling companies.

Uncompleted work on hand at the close of the year was fifty percent greater than a year earlier and amounted to \$1.626 million.



Three Pipestream fairings on a 24 inch riser assembly being lowered into the sea from a drill rig in the South Atlantic.

Financial Affairs

This is the second consecutive year of profitable operations and is indicative of a growing stability. Short term lines of credit made available to us from our bankers and the Ontario Development Corporation have been increased. This is significant. Long term contracts can create cash flow problems and the growing confidence of these two financial institutions is important.

The Outlook

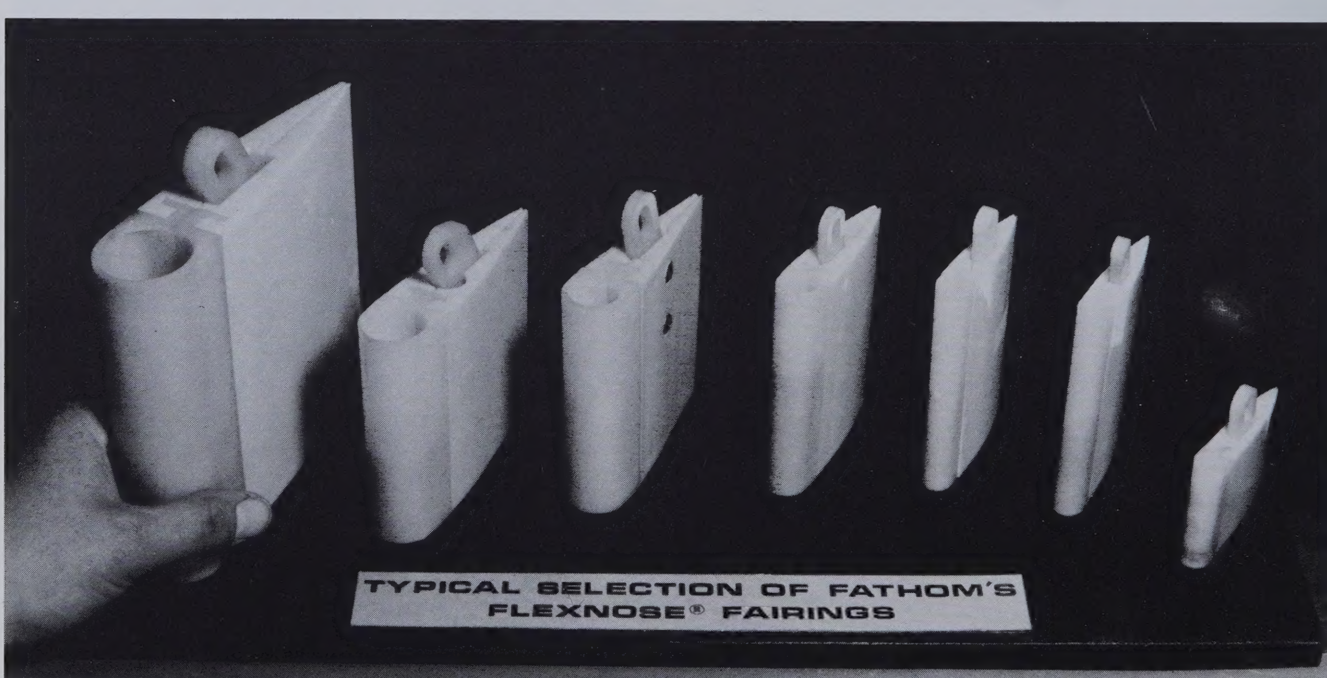
Since the company was formed less than a decade ago it has developed an expertise that is recognized worldwide. No other company has as much knowledge as does Fathom in the science of fairing (streamlining techniques) as it is related to the handling of equipment in the deep and turbulent waters of the oceans.

The products which we have developed have become known to the major navies, oceanographic research establishments, and more recently those concerned with seabed mining and deep sea oil drilling. Other potentials include newly established ecological research establishments anxious to maintain stable positioning of data buoy systems anchored to the bed of the sea and floating on the surface of the water. For this, we have developed the Rigstream ™ fairing.

In terms of the future there is reason to suppose that there will be a steady demand for the Fathom towing system as specifically designed customized equipment. Sonar domes will also continue to be in demand and will be part of a steady source of revenue.

Both Fathom's fairings and fairing technology have an important future. Protected by patents, weightless in water, the fairing has been developed as a unit no more than three inches in length for small half inch diameter cable control, to fifteen foot sections capable of fitting oil riser pipes twenty-four inches in diameter. It is a consumable item needed by every customer in relatively large numbers.

The ever growing need of oceanologists to handle objects suspended or anchored in deep waters appears to be growing. Companies all over the world are seeking us out and for many we are providing the solutions to their problems.



A typical selection of Fathom Flexnose ® fairings designed to fit a variety of cable sizes. As the name, Flexnose ® suggests, it's flexible to bend around a drum. In the water it allows a towed body to reach greater depths at higher speeds than any other design.

When and wherever opportunities exist Fathom will go and offer its expertise. Such opportunities have come from some of the largest and most respected companies and institutions around the globe. We think they will continue.

Staff

The number of people employed by the company on the last day of the financial year was 39. This is six less than a year earlier and reflects a minor shift in shop loading at that particular point in time.

The Directors once again express their respect and thanks to the whole Fathom team for untiring efforts throughout the year.

By order of the Board of Directors.

K. R. Olsen
Chairman of the Board

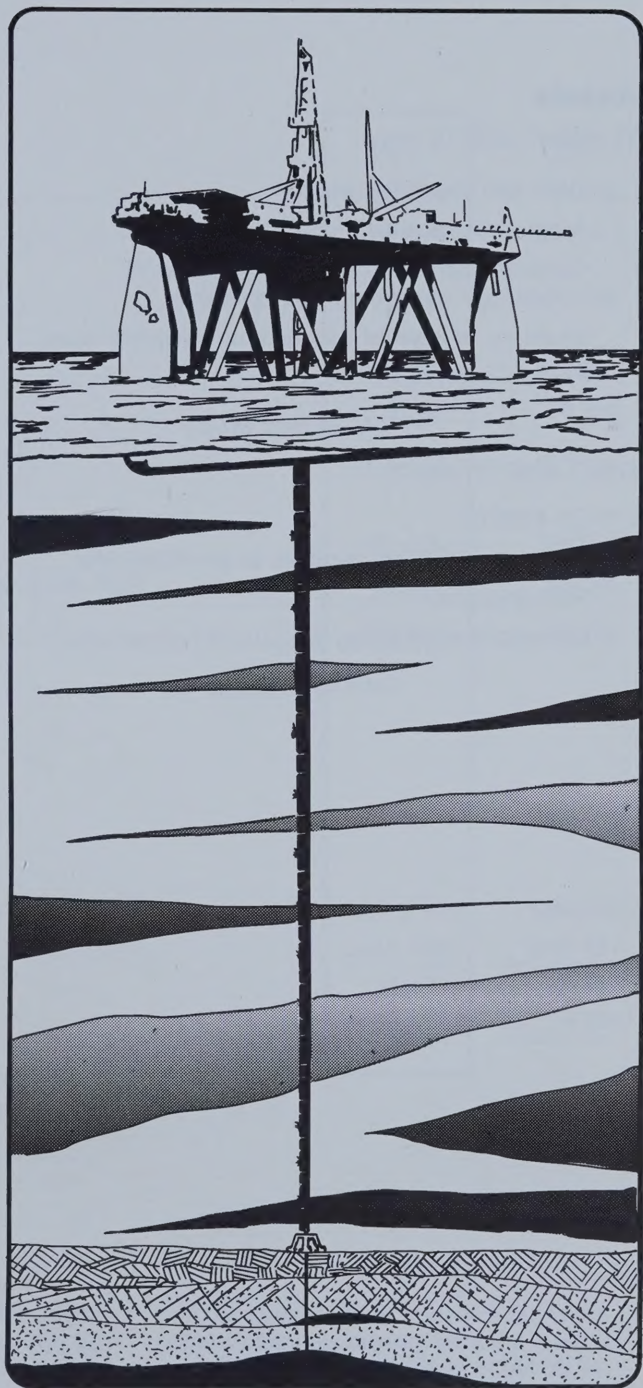
R. L. I. Fjarlie
President

The drawing on the right is a Cross Section of a typical offshore oil drilling rig showing the riser pipe faired with Fathom Pipestream ™ drag control units. The units have been specially developed by Fathom to protect oil riser pipes.

An offshore oil well riser pipe is usually hundreds of feet long and consists of a large diameter pipe, typically about twenty-four inches in diameter, surrounded by smaller pipes and control lines. The actual drill is in the large pipe.

When currents and tides swish around the riser, eddies cause it to vibrate and water pressure causes it to bend.

With Pipestream ™ fairing fitted all the way down the pipe, the vibration is eliminated and the water pressure greatly reduced due to the streamlining effect. The fairings are very rugged to withstand the hostile ocean environment.



FATHOM OCEANOLOGY LIMITED

(Incorporated under the Canada Corporations Act)

Consolidated Balanc
(with comparative f

Assets

	1977	1976
CURRENT ASSETS		
Cash and short term deposit	—	$ 167,226
Accounts receivable (notes 3(a) and 3(c))	$290,110	483,598
Costs and estimated earnings in excess of billings on uncompleted contracts	171,397	145,840
Inventory, at lower of cost and net realizable value	44,976	44,541
Prepaid expenses	5,347	2,583
Total current assets	511,830	843,788
FIXED ASSETS (note 2)	188,919	157,547
OTHER ASSETS		
Patents and patents pending, at amortized cost	48,202	67,550
Rent deposits	10,213	10,213
Completed engineering designs, at nominal value	1	1
Total other assets	58,416	77,764
	$759,165	$1,079,099

On behalf of the Board:

K. R. Olsen, Director

R. L. I. Fjarlie, Director

(See accompanying notes)

eet at March 31, 1977
s at March 31, 1976)

(Statement 1)

Liabilities and Shareholders' Equity

	1977	1976
CURRENT LIABILITIES		
Bank indebtedness (note 3(c))	$ 99,756	$ 7,750
Accounts payable and accrued charges	249,026	295,970
Billings in excess of costs and estimated earnings on uncompleted contracts	1,800	378,170
Due to Ontario Development Corporation (note 3(a)) —		
export support loan	112,966	113,576
current portion of venture capital loan	9,687	8,956
Total current liabilities	473,235	804,422
NON-CURRENT LIABILITIES		
12% convertible notes payable (notes 3(b) and 4(a))	177,050	184,050
Due to Ontario Development Corporation — venture capital loan (note 3(a))	55,553	65,240
Total non-current liabilities	232,603	249,290
SHAREHOLDERS' EQUITY		
Share capital (notes 3(b) and 4) —		
Authorized:		
3,000,000 common shares without nominal or par value		
Issued:		
1,504,667 common shares (1976 — 1,478,667 shares)	701,733	690,818
Deficit (statement 2)	(648,406)	(665,431)
	53,327	25,387
	$759,165	$1,079,099

Auditors' Report

To the Shareholders of
FATHOM OCEANOLOGY LIMITED:

We have examined the consolidated balance sheet of Fathom Oceanology Limited as at March 31, 1977 and the consolidated statements of income and deficit and changes in financial position for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances.

In our opinion, these consolidated financial statements present fairly the financial position of the company as at March 31, 1977 and the results of its operations and the changes in its financial position for the year then ended in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Mississauga, Canada
July 28, 1977

CLARKSON, GORDON & CO.
Chartered Accountants

FATHOM OCEANOLOGY LIMITED

(Incorporated under the Canada Corporations Act)

Consolidated Statement of Income and Deficit

(Statement 2)

for the year ended March 31, 1977
(with comparative figures for 1976)

	1977	1976
CONTRACT REVENUE	$2,036,237	$1,702,626
COSTS		
Manufacturing	1,544,784	1,128,254
Administrative	435,244	309,950
Interest — long-term debt	26,837	28,711
— short-term debt	12,347	15,463
	2,019,212	1,482,378
Income before income taxes and extraordinary item	17,025	220,248
Income taxes	7,150	92,700
Income before extraordinary item	9,875	127,548
Extraordinary item — reduction in income taxes arising from losses carried forward (note 7)	7,150	92,700
Net income for the year	17,025	220,248
Deficit, beginning of year	(665,431)	(885,679)
Deficit, end of year	$ (648,406)	$ (665,431)
Income per share:		
Before extraordinary item	$0.007	$0.090
For the year	$0.011	$0.150
Fully diluted income per share (note 8):		
Before extraordinary item		$0.070
For the year		$0.120

(See accompanying notes)

FATHOM OCEANOLOGY LIMITED
(Incorporated under the Canada Corporations Act)

Consolidated Statement of Changes in Financial Position
(Statement 3)

for the year ended March 31, 1977
(with comparative figures for 1976)

	1977	1976
FUNDS PROVIDED FROM		
Operations —		
Income before extraordinary item	$ 9,875	$127,548
Charges to operations not resulting in an outlay of funds:		
Depreciation and amortization	62,792	59,992
Amortization of patents and patents pending	24,129	17,135
Funds provided from operations	96,796	204,675
Extraordinary item	7,150	92,700
Issue of common shares	10,915	—
Total funds provided	114,861	297,375
FUNDS WERE APPLIED TO		
Purchase of fixed assets (net of government grants of $30,218 in 1977)	94,164	105,267
Cost of patents and patents pending	4,781	5,096
Decrease in long-term debt	16,687	8,956
Total funds applied	115,632	119,319
(Decrease) increase in working capital	(771)	178,056
WORKING CAPITAL (DEFICIENCY), beginning of year	39,366	(138,690)
WORKING CAPITAL, end of year	$ 38,595	$ 39,366

(See accompanying notes)

FATHOM OCEANOLOGY LIMITED

(Incorporated under the Canada Corporations Act)

Notes to Consolidated Financial Statements March 31, 1977

1. Accounting policies

The following is a summary of significant accounting policies followed in the preparation of the consolidated financial statements. The policies conform to generally accepted accounting principles and have been applied consistently.

(a) Basis of consolidation —

The consolidated financial statements include the accounts of the company's wholly-owned inactive subsidiary, Hale & Associates Limited.

(b) Contracts —

Profits on contracts are recorded using the percentage of completion method. Complete provision is made for losses on contracts in progress when they first become known. In the case of contracts extending over one or more years, revisions in cost and profit estimates, which can be significant, are reflected in the accounting period in which the relevant facts become known.

When the company enters into contracts with customers to develop and produce specialized equipment with the expectation that the Canadian government will share the specific development costs with the customer, the related government grants are accounted for as revenue by the company.

(c) Fixed assets —

Fixed assets are recorded at acquisition cost. Where government grants are received specifically for a particular fixed asset, the cost of that asset is reduced by the amount of the grant. Depreciation is recorded in the accounts on the declining balance basis at the following annual rates:

Equipment and ship ocean simulator	20%
Patterns and tooling	33 1/3%
Vehicle	30%

Leasehold improvements are amortized on the straight line method over the term of the lease. Costs which extend the useful life of a fixed asset are capitalized. All other costs of repairs and maintenance are charged to operations as incurred.

(d) Research and development —

Research and development costs, excluding costs of patents and patents pending, are charged to operations as incurred. Where government grants are received for research and development projects initiated by the company for its own purposes, these grants are deducted from the research and development costs.

(e) Patents and patents pending —

The costs incurred for patents and patents pending are capitalized. The costs incurred to March 31, 1971 are being amortized over the projected sales to March 31, 1978. Costs subsequent to March 31, 1971 are being amortized on a straight line basis over a ten year period.

(f) Engineering designs —

Costs of engineering designs are charged to operations as incurred.

2. Fixed assets

	Original cost	Government grants (note 6)	Accumulated depreciation and amortization	Net book value 1977	Net book value 1976
Equipment	$147,124	—	$ 75,624	$ 71,500	$ 60,215
Ship ocean simulator	163,719	$ 71,849	43,108	48,762	23,248
Leasehold improvements	39,408	—	23,317	16,091	11,836
Vehicle	2,249	—	675	1,574	—
Patterns and tooling	243,761	34,624	158,145	50,992	62,248
Total	$596,261	$106,473	$300,869	$188,919	$157,547

Reference is made to note 3(a).

3. Loans and notes payable

(a) The Ontario Development Corporation (O.D.C.) —

In 1973, the company entered into an agreement with O.D.C. under which O.D.C. agreed to advance an 8% venture capital loan of $100,000 and a 6 1/2% export support loan of up to $150,000. The maximum level of the export loan was subsequently increased to $500,000. The venture capital loan is being repaid over 10 years in blended monthly payments of principal and interest of $1,206. The export support loan is available to provide funds upon receipt of a contract to finance the manufacture and sale of equipment for export. Of the $500,000 available, $350,000 can be used to finance the manufacturing stage of export orders, of which $200,000 is available only for specifically approved export orders; the remainder can be used to finance related receivables. Loans are repayable out of amounts received from the relevant contracts, or on demand.

The loans are secured by:

(i) chattel mortgage on equipment owned by the company, except for certain equipment as referred to in note 3(c);

(ii) a floating charge on all assets (except accounts receivable required to secure any bank loans as referred to in note 3(c));

(iii) an assignment and postponement of the 12% convertible notes outstanding as described in note 3(b);

(iv) an assignment of fire and export insurance policies;

(v) an assignment of specific accounts receivable related to sales financed under the export support loan program.

(b) 12% convertible notes —

Under the terms of an agreement signed by the noteholders in favour of O.D.C., the 12% convertible notes cannot be redeemed until all loans from O.D.C. have been repaid.

Pursuant to the terms of a resolution passed by the shareholders on August 27, 1975, the notes are convertible at the option of the noteholder at the rate of 1 share for every $0.50 of notes until August 27, 1978. Thereafter, the rate increases to $0.60. Reference is made to note 4(a).

The company has reserved 354,100 unissued shares for the possible conversion of the remaining notes.

(c) Bank indebtedness —

The bank loan, which is repayable on demand, is secured by a general assignment of those book debts and inventories not assigned to the Ontario Development Corporation, as well as a chattel mortgage on specific equipment.

4. Share capital

During the year:

(a) 14,000 common shares were issued on the conversion of $7,000 of the 12% convertible notes;

(b) 12,000 common shares were issued for $3,915 cash under the company's share purchase plan.

Options to purchase up to 120,000 common shares of the company's authorized share capital are available to certain senior officers at option prices of $0.315 and $0.36. Under the option plan 45,000 common shares may be purchased at any time to 1980 and 75,000 common shares may be purchased at a rate of 20 per cent cumulatively over five years to 1981.

Under the company's share purchase plan certain senior officers and key employees have subscribed to purchase 48,000 shares at the lesser of the initial prices of $0.315 and $0.36 or at 90% of the market price on the last market day of each subscription year exercised. These shares may be purchased at any time up to 1980 except for 12,000 shares which may be purchased at a rate of 3,000 shares each year.

Under the company's share option and share purchase plans referred to above, 188,000 of the company's authorized but unissued common shares are reserved for issue to officers and employees.

5. Commitment

At March 31, 1977 the company had a commitment under a premises lease to pay rent at an annual rate of approximately $30,000 up to November 30, 1979.

6. Contingent liabilities for Government of Canada grants

From 1972 to 1977 the company received grants under certain federal government programs, as follows:

(a) $602,500 (including $76,255 for fixed assets) for the development of towing systems. All or a portion of this grant is repayable out of future sales arising from the developed technology, or with government approval the funds may be reinvested in future development projects.

(b) $56,100 for the design of a towing system. Of this amount, $18,700 is repayable on a royalty basis from any future sales of the fully developed system.

(c) $250,375 for the design and development of a new deep towing system for delivery to a West German customer. Of this amount $30,218 was for a capital asset which could be repayable should the company put this asset into commercial use.

To March 31, 1977 no provisions have had to be made in the company's accounts with respect to the possible repayment of the required portion of any of these grants.

7. Income taxes

Losses aggregating $247,800 (of which $172,100 expires in 1979 and $75,700 in 1980) and depreciation charges of approximately $406,400 recorded in the company's accounts but not claimed for tax purposes are available to reduce taxable income of future years.

8. Earnings per share

Fully diluted earnings per share have not been shown for 1977 as the conversion of outstanding notes and exercise of share options would have had no dilutive effect.

9. Statutory information

In accordance with Section 122.2 of the Canada Corporations Act, it is reported that during the year there were seven directors who received $1,000 as directors and seven officers who received $175,100 as officers. During the year, four directors were also officers.

FATHOM